CLAIM AMENDMENTS

Claim 1. (currently amended) A method for controlling power consumption during a rock drilling process with a rock drilling apparatus, wherein the rock drilling apparatus includes main power supply means for supplying power for the rock drilling process, which includes at least the sub-processes of flushing and at least one of percussion and rotation, ~~percussion and/or rotation and flushing,~~ the method comprising the steps of:

- adjusting flush power directly ~~at least partly~~ in dependence on a value representing ~~as a function of~~ hole depth, and
- controlling ~~at least percussion power and/or rotational power and the flush power~~ the flush power and at least one of the percussion power and rotational power such that total power consumption of each said sub-process is controlled.

Claim 2. (original) Method according to claim 1, characterized in that the flush power further is adjusted at least partly as a function of hole diameter and/or diameter of the drill rod.

Claim 3. (previously presented) Method according to claim 1, characterized in that the total power consumption of each sub-process is controlled such that power output from the main power supply means is kept at or below a predetermined level.

Claim 4. (previously presented) Method according to Claim 1, characterized in that the flow of flush medium is kept substantially constant throughout the drilling process.

Claim 5. (previously presented) Method according to Claim 1, characterized in that the flow of flush medium is increased with increasing hole depth.

Claim 6. (previously presented) Method according to Claim 1, characterized in that the hole depth is continuously measured.

Claim 7. (previously presented) Method according to Claim 1, characterized in that the flow of flush medium is continuously measured.

Claim 8. (previously presented) Method according to Claim 1, characterized in that the required flush power is determined by computer means.

Claim 9. (previously presented) Method according to claim 8, characterized in that the computer means is connected to a memory in which is stored a table comprising one or more lists at least partly including hole depth and further type of drill tool and/or type of drill rod, and that the flush power is determined based on stored values.

Claim 10. (previously presented) Method according to Claim 1, characterized in that percussion is performed by a hydraulic top hammer.

Claim 11. (currently amended) System for controlling power consumption during a rock drilling process with a rock drilling apparatus, wherein the rock drilling apparatus includes main

power supply means for supplying power for the rock drilling process, which includes at least the sub-processes of flushing and at least one of percussion and rotation, ~~percussion and/or rotation and flushing,~~ the system comprising:

- means for adjusting flush power directly ~~at least partly~~ in dependence on a value representing ~~as a function of~~ hole depth, and
- means for controlling the flush power and at least one of the percussion power and rotational power such that total power consumption of each said sub-process is controlled. ~~at least percussion power and/or rotational power and the flush power.~~

Claim 12. (original) System according to claim 11, characterized in that it further includes means for adjusting the flush power at least partly as a function of hole diameter and/or diameter of the drill rod.

Claim 13. (previously presented) System according to claim 11, characterized in that the system is arranged to control the total power consumption of each sub-process such that power output from the main power supply means is kept at or below a predetermined level.

Claim 14. (previously presented) System according to Claim 11, characterized in that the system is arranged to keep the flow of flush medium substantially constant throughout the drilling process.

Claim 15. (previously presented) System according to Claim 11, characterized in that the system is arranged to increase the flow of flush medium with increasing hole depth.

Claim 16. (previously presented) System according to Claim 11, characterized in that the system is arranged to continuously measure the hole depth.

Claim 17. (previously presented) System according to Claim 11, characterized in that the system is arranged to continuously measure the flow of flush medium.

Claim 18. (previously presented) System according to Claim 11, characterized in that the system is arranged to determine the required flush power by computer means.

Claim 19. (previously presented) System according to claim 18, characterized in that the computer means is connected to a memory arranged to store a table comprising one or more of lists at least partly including hole depth and further type of drill tool and/or type of drill rod, and that the flush power is arranged to be determined based on stored values.

Claim 20. (previously presented) System according to Claim 11, characterized in that percussion is arranged to be performed by a hydraulic top hammer.

Claim 21. (previously presented) Rock drill apparatus, characterized in that is arranged to include a system according to Claim 11.

Claim 22. (previously presented) Method according to Claim 2, characterized in that the total power consumption of each sub-process is controlled such that power output from the main power supply means is kept at or below a predetermined level.

Claim 23. (previously presented) System according to Claim 12, characterized in that the system is arranged to control the total power consumption of each sub-process such that power output from the main power supply means is kept at or below a predetermined level.

Claim 24. (currently amended) Method according to claim 1, wherein the step of adjusting flush power ~~at least partly~~ in dependence on a value representing ~~as a function of~~ hole depth, includes the step of increasing flush power with increasing hole depth.

Claim 25. (currently amended) System according to claim 11, wherein said means for adjusting flush power ~~at least partly~~ in dependence on a value representing ~~as a function of~~ hole depth, includes means for increasing flush power with increasing hole depth.